

8. $f(z) = \frac{1+z}{1-z}$ or $|z| < 1$ $z_0 = \frac{1-i}{1+i}$ 일 때 $f(z_0)$ 의 값을 계산하라

$$z_0 = \frac{1-i}{1+i} = \frac{(1-i)(1-i)}{(1+i)(1-i)} = \frac{1-i^2-1}{2} = -i$$

$$f(z_0) = \frac{1+(1-i)}{1-(1-i)} = \frac{1-i}{1+i} = \frac{(1-i)(1-i)}{(1+i)(1-i)} = \frac{1-i^2-1}{2} = (-i)$$

$$\therefore f\left(\frac{1-i}{1+i}\right) = -i$$